FIG. 1

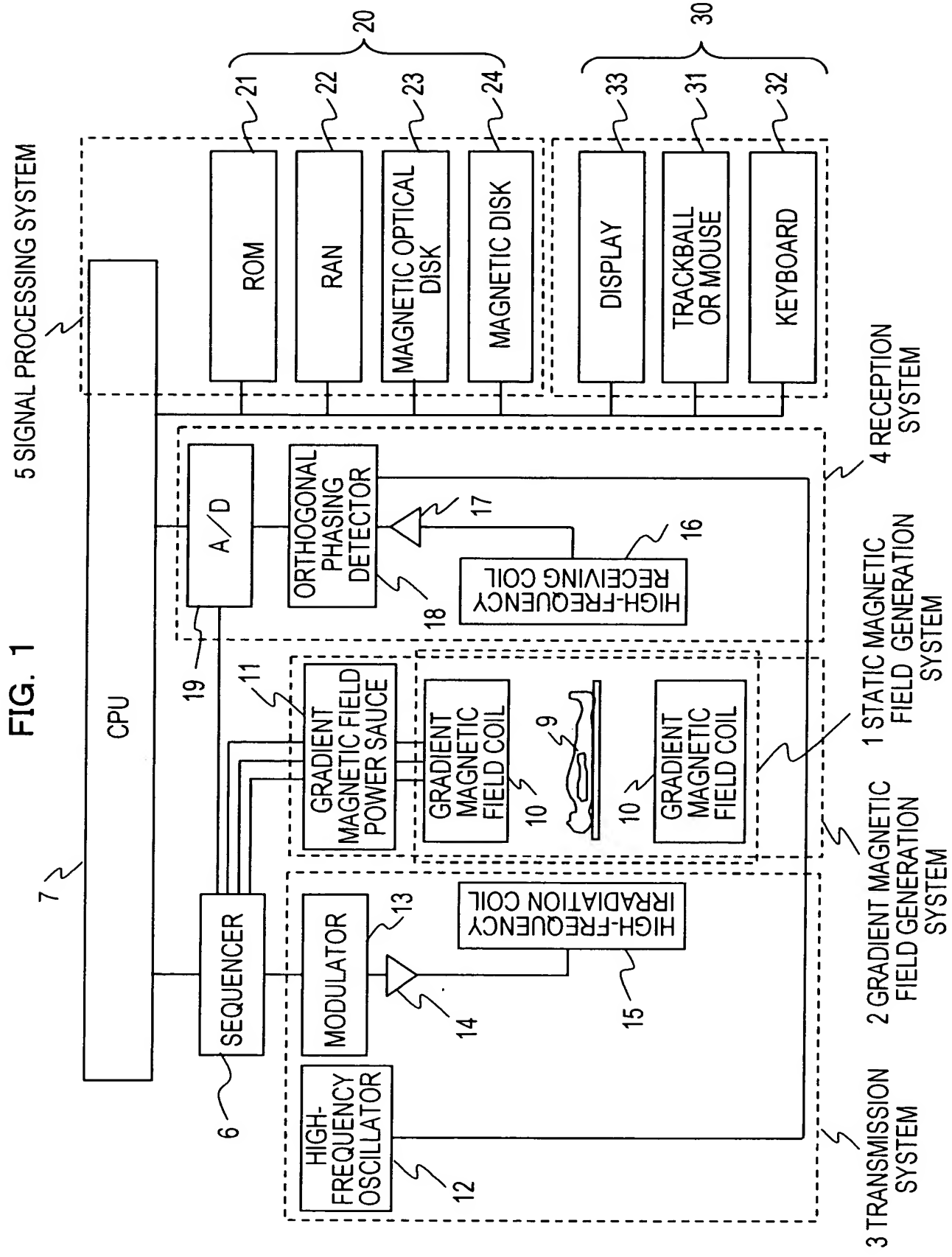

5 SIGNAL PROCESSING SYSTEM
20
30
21
22
23
24
33
31
32
ROM
RAN
MAGNETIC OPTICAL DISK
MAGNETIC DISK
DISPLAY
TRACKBALL OR MOUSE
KEYBOARD
4 RECEPTION SYSTEM
A/D
ORTHOGONAL PHASING DETECTOR
17
16
HIGH-FREQUENCY RECEIVING COIL
18
19
11
GRADIENT MAGNETIC FIELD POWER SAUCE
GRADIENT MAGNETIC FIELD COIL
10
9
10
GRADIENT MAGNETIC FIELD COIL
1 STATIC MAGNETIC FIELD GENERATION SYSTEM
7
CPU
SEQUENCER
MODULATOR
13
HIGH-FREQUENCY IRRADIATION COIL
14
15
2 GRADIENT MAGNETIC FIELD GENERATION SYSTEM
6
HIGH-FREQUENCY OSCILLATOR
12
3 TRANSMISSION SYSTEM

FIG. 2

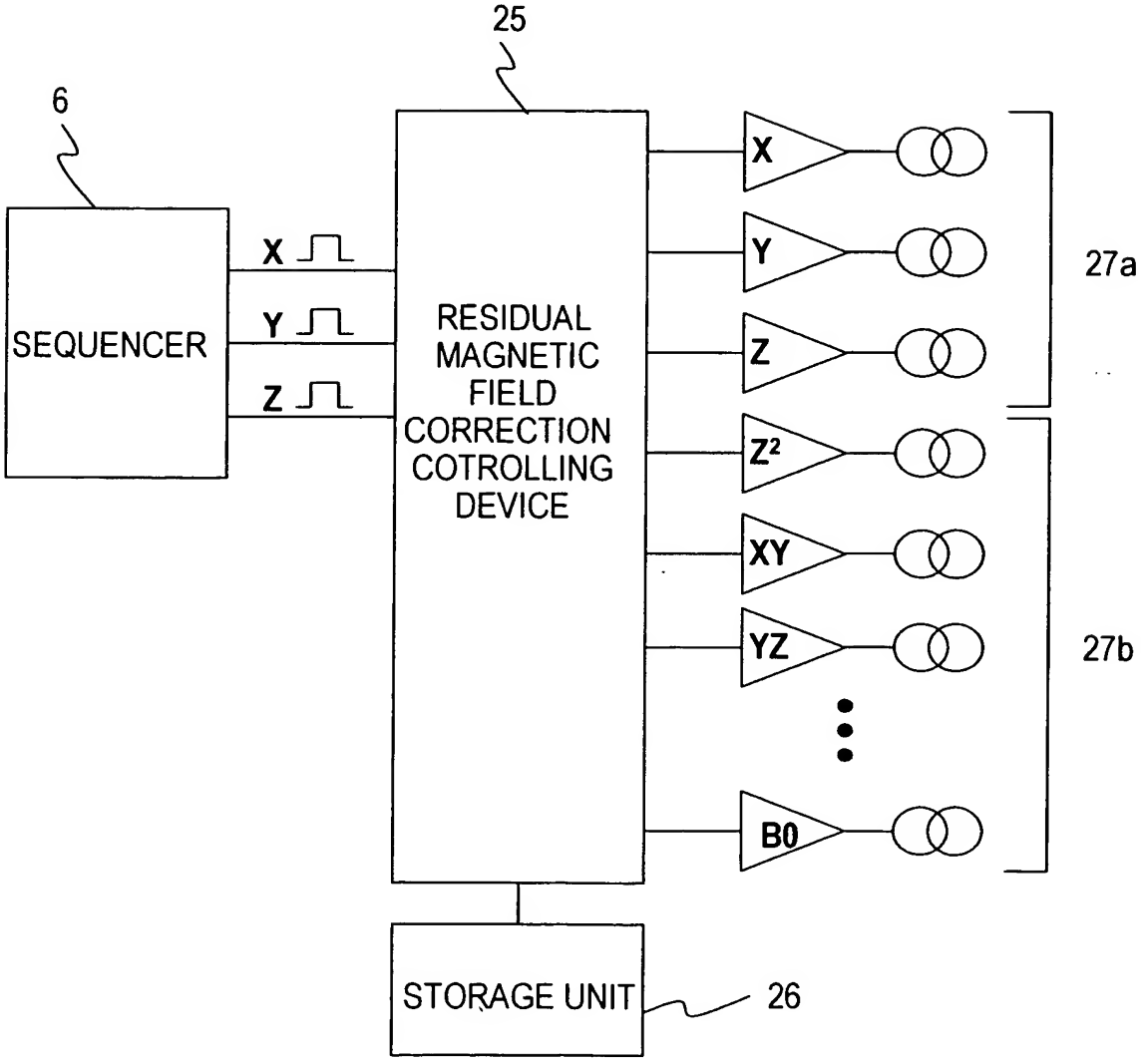

25
6
SEQUENCER
X
Y
Z
RESIDUAL MAGNETIC FIELD CORRECTION COTROLLING DEVICE
X
Y
Z
Z²
XY
YZ
B0
27a
27b
STORAGE UNIT
26

FIG. 3

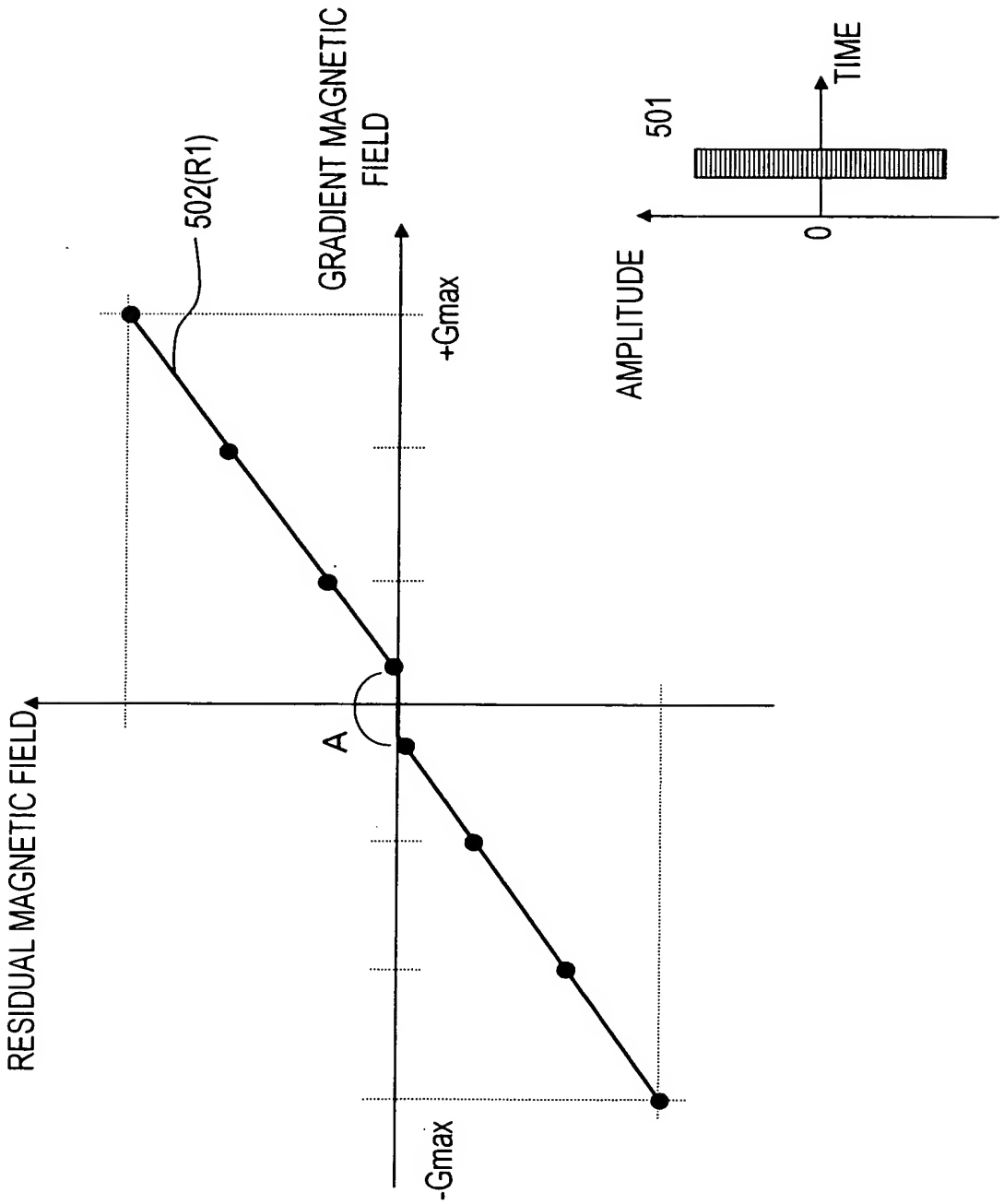

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
-Gmax
502(R1)
A
AMPLITUDE
501
0
TIME

FIG. 4

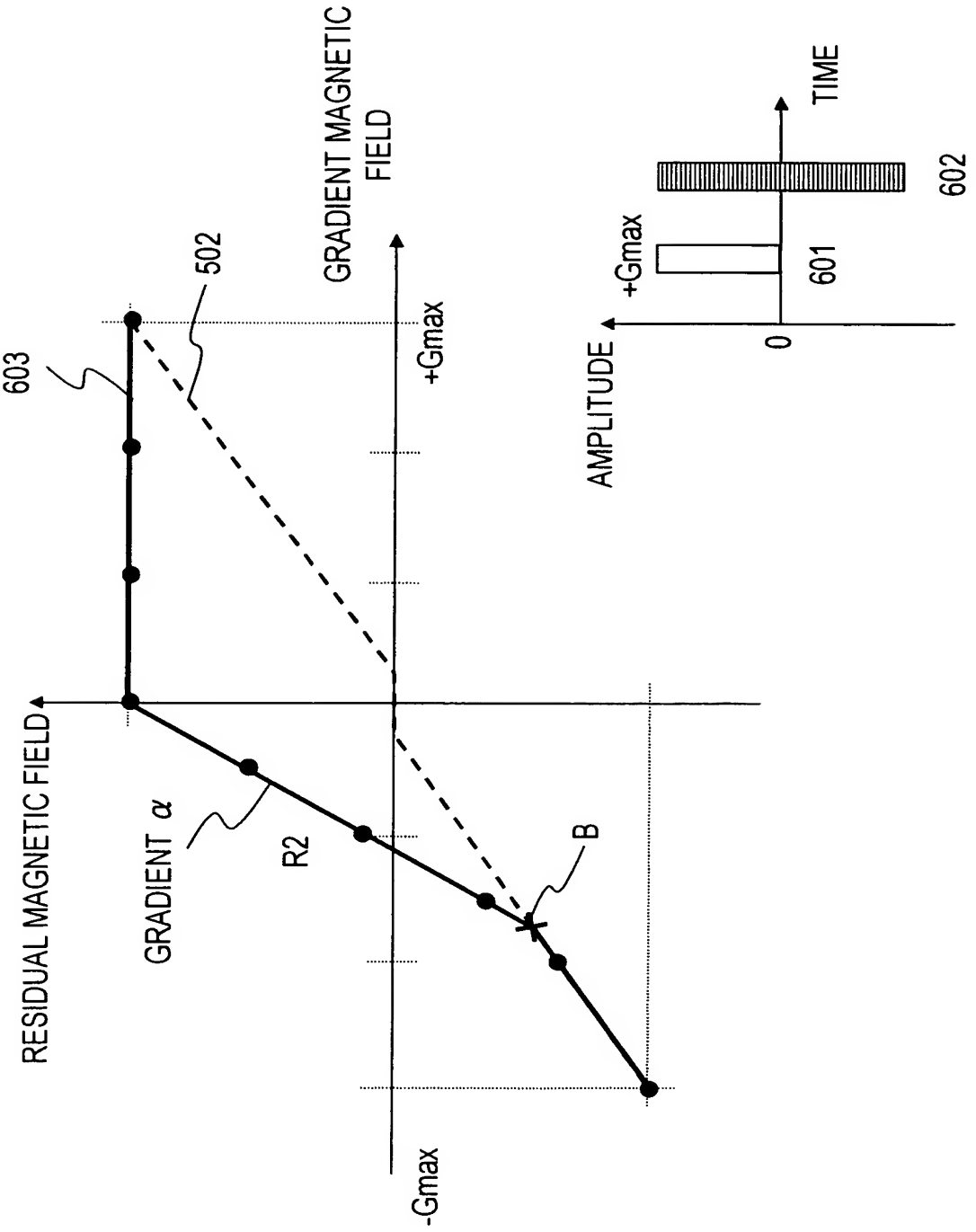

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
-Gmax
603
502
GRADIENT α
R2
B
AMPLITUDE
+Gmax
0
TIME
601
602

FIG. 5

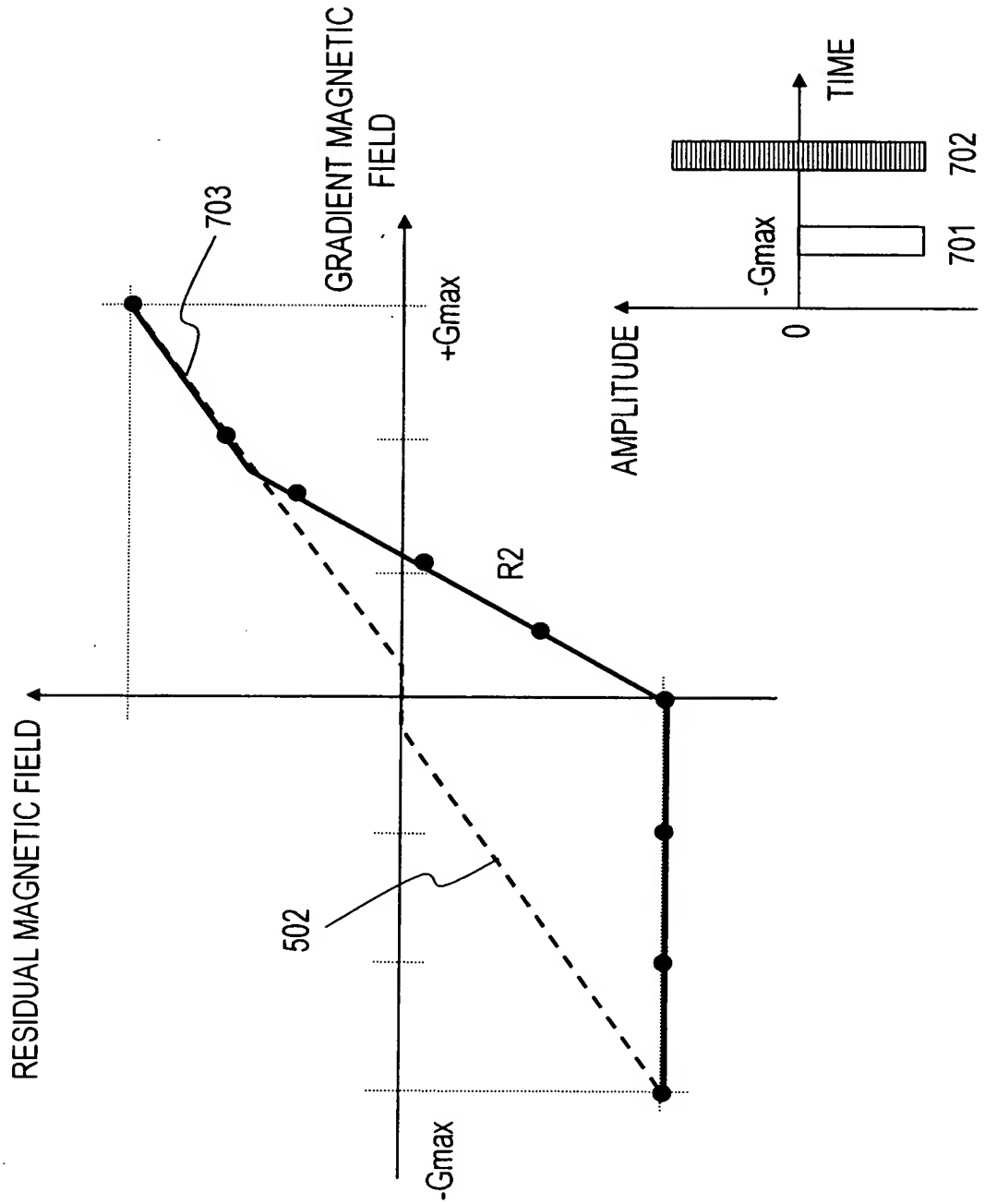

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
-Gmax
703
502
R2
AMPLITUDE
TIME
0
-Gmax
701
702

FIG. 6a

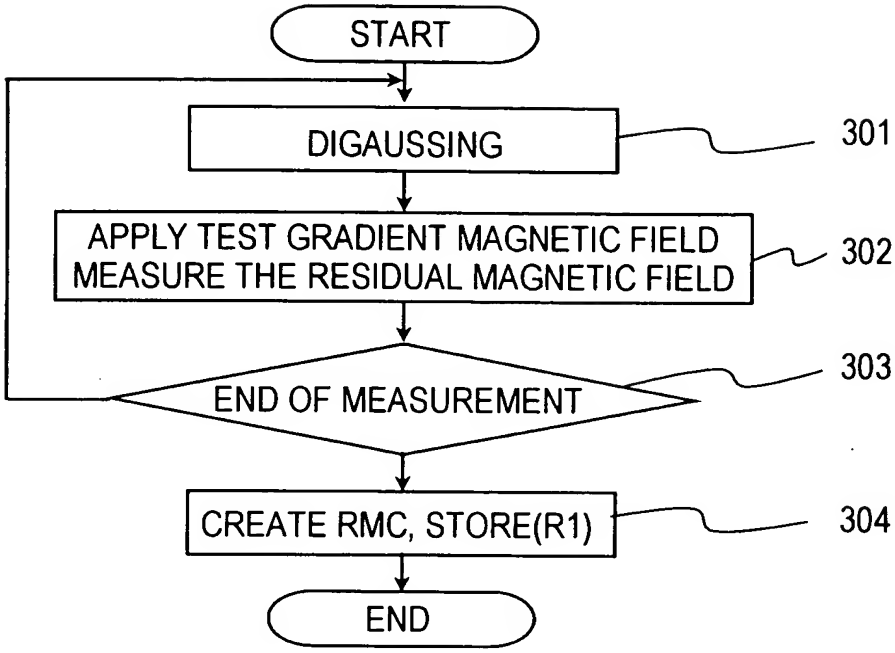

START
DIGAUSSING
301
APPLY TEST GRADIENT MAGNETIC FIELD
MEASURE THE RESIDUAL MAGNETIC FIELD
302
END OF MEASUREMENT
303
CREATE RMC, STORE(R1)
304
END

FIG. 6b

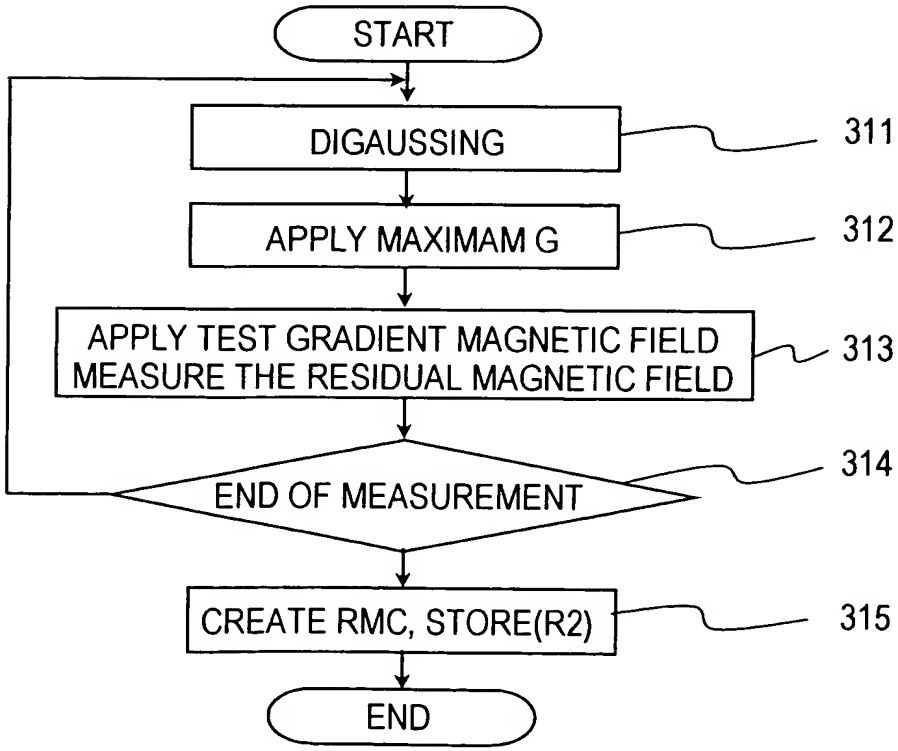

START
DIGAUSSING
311
APPLY MAXIMAM G
312
APPLY TEST GRADIENT MAGNETIC FIELD
MEASURE THE RESIDUAL MAGNETIC FIELD
313
END OF MEASUREMENT
314
CREATE RMC, STORE(R2)
315
END

FIG. 7

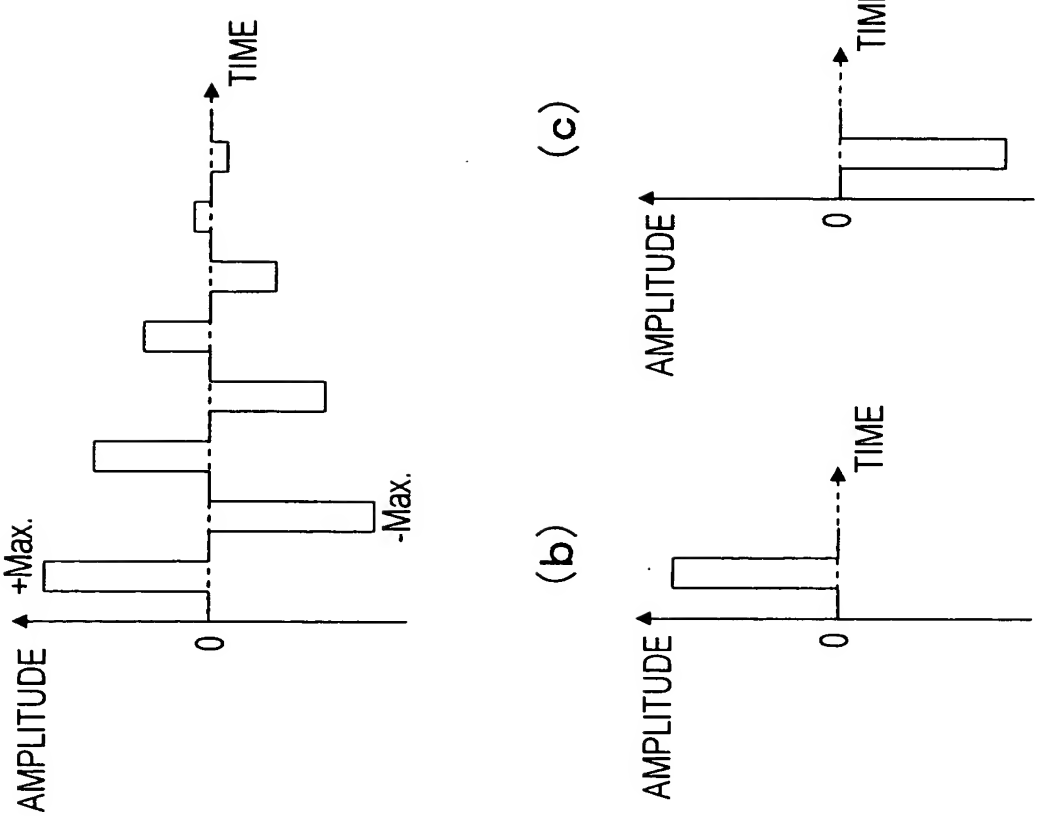

(a)
AMPLITUDE
+Max.
-Max.
0
TIME
(b)
AMPLITUDE
0
TIME
(c)
AMPLITUDE
0
TIME
(d)
AMPLITUDE
0
TIME

FIG. 8

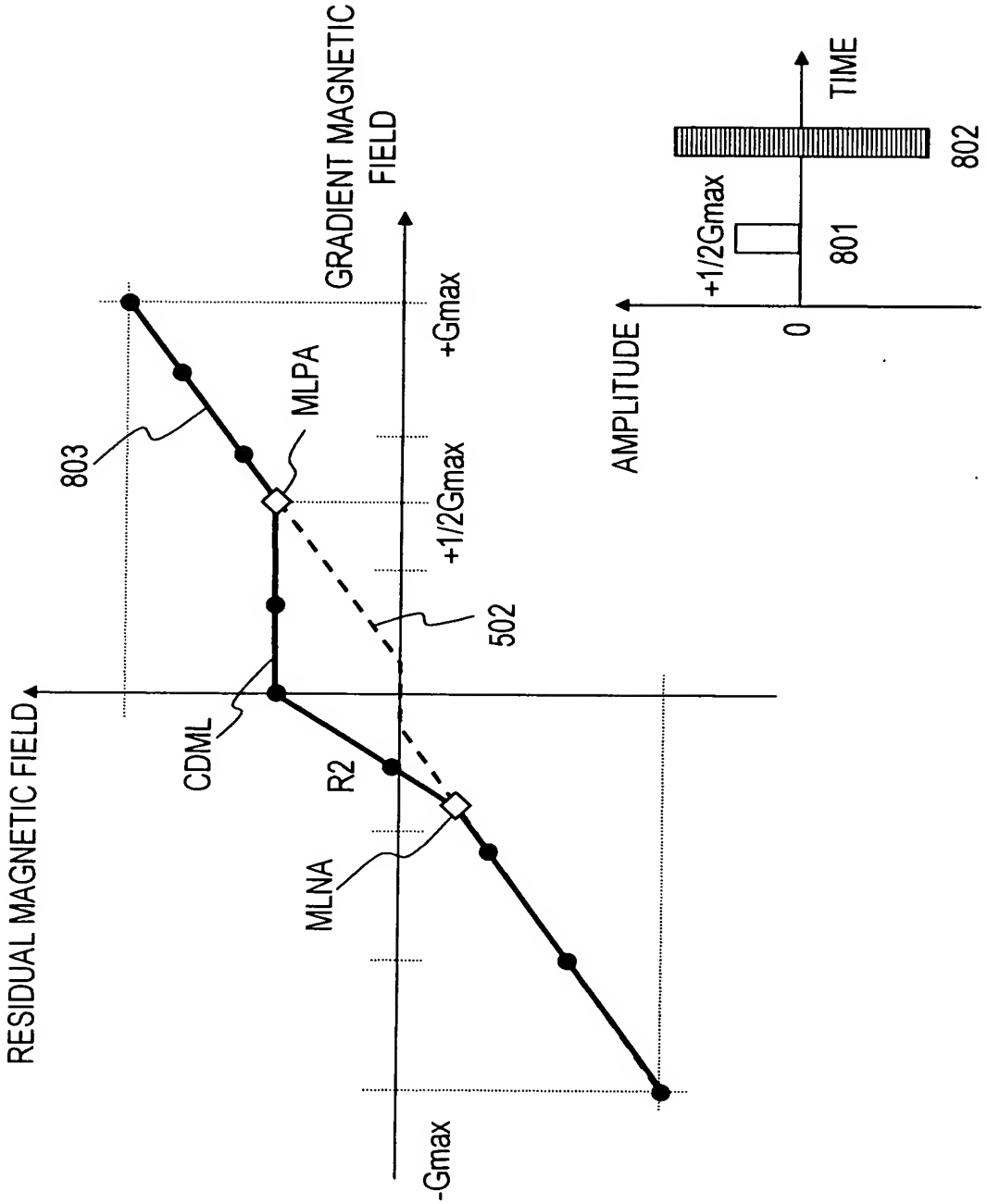

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
+1/2Gmax
-Gmax
803
MLPA
CDML
R2
MLNA
502
AMPLITUDE
TIME
+1/2Gmax
0
801
802

FIG. 9

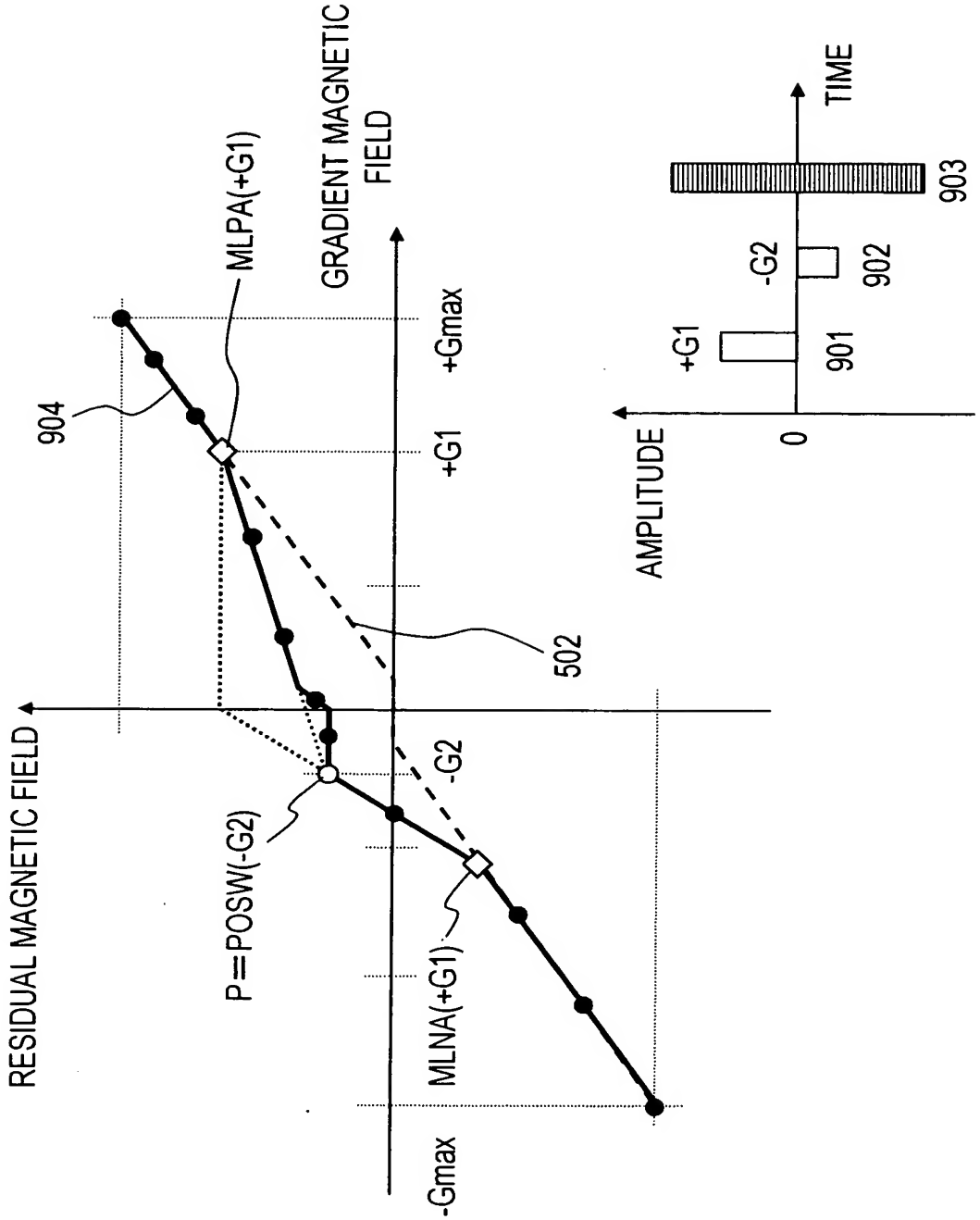

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
+G1
-G2
-Gmax
MLPA(+G1)
MLNA(+G1)
P=POSW(-G2)
904
502
AMPLITUDE
TIME
+G1
-G2
0
901
902
903

FIG. 10

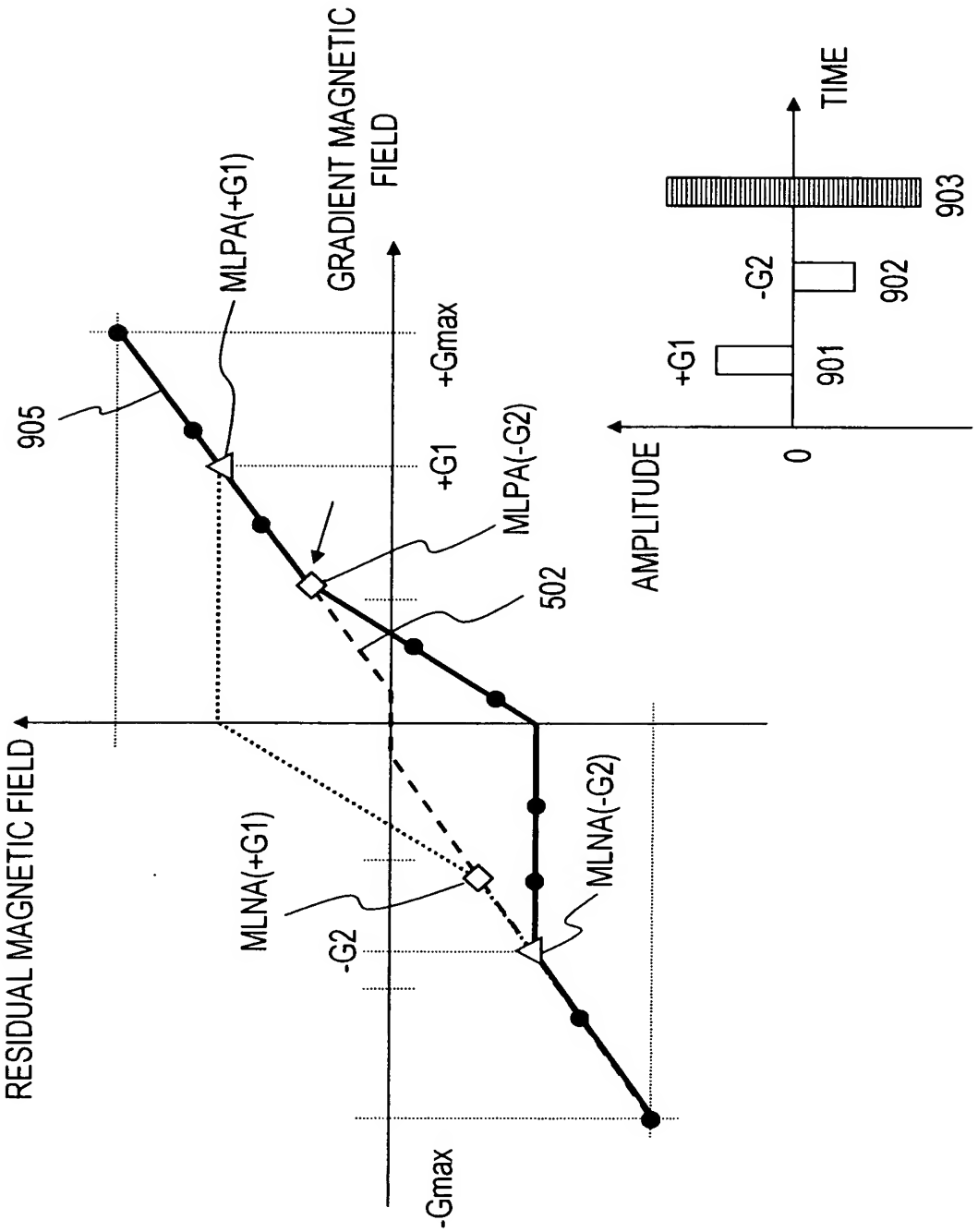

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
+G1
-G2
-Gmax
905
MLPA(+G1)
MLPA(-G2)
502
MLNA(+G1)
MLNA(-G2)
AMPLITUDE
TIME
+G1
-G2
0
901
902
903

FIG. 11

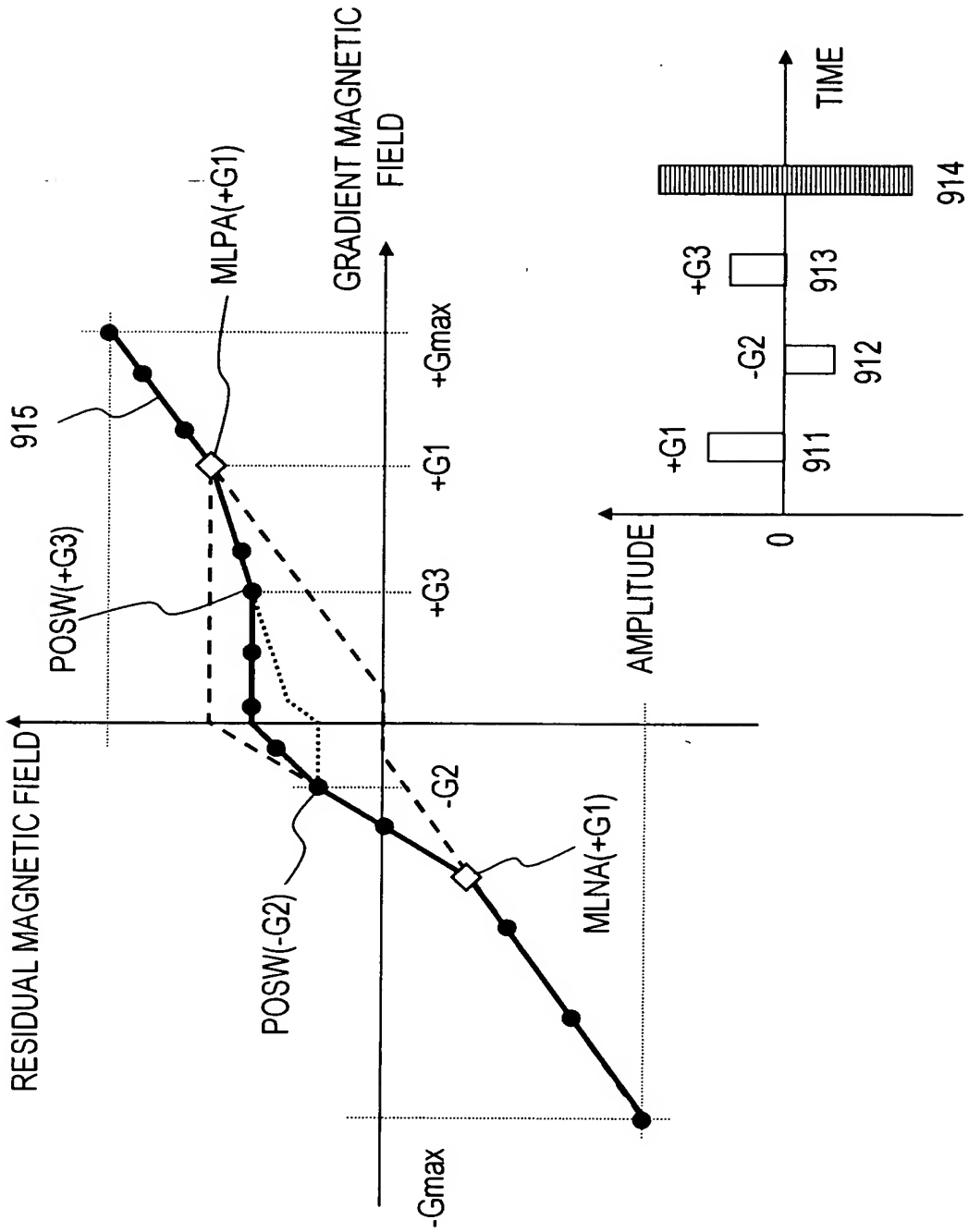

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
AMPLITUDE
TIME
915
MLPA(+G1)
POSW(+G3)
POSW(-G2)
MLNA(+G1)
+Gmax
+G1
+G3
-G2
-Gmax
+G1
-G2
+G3
911
912
913
914
0

FIG. 12

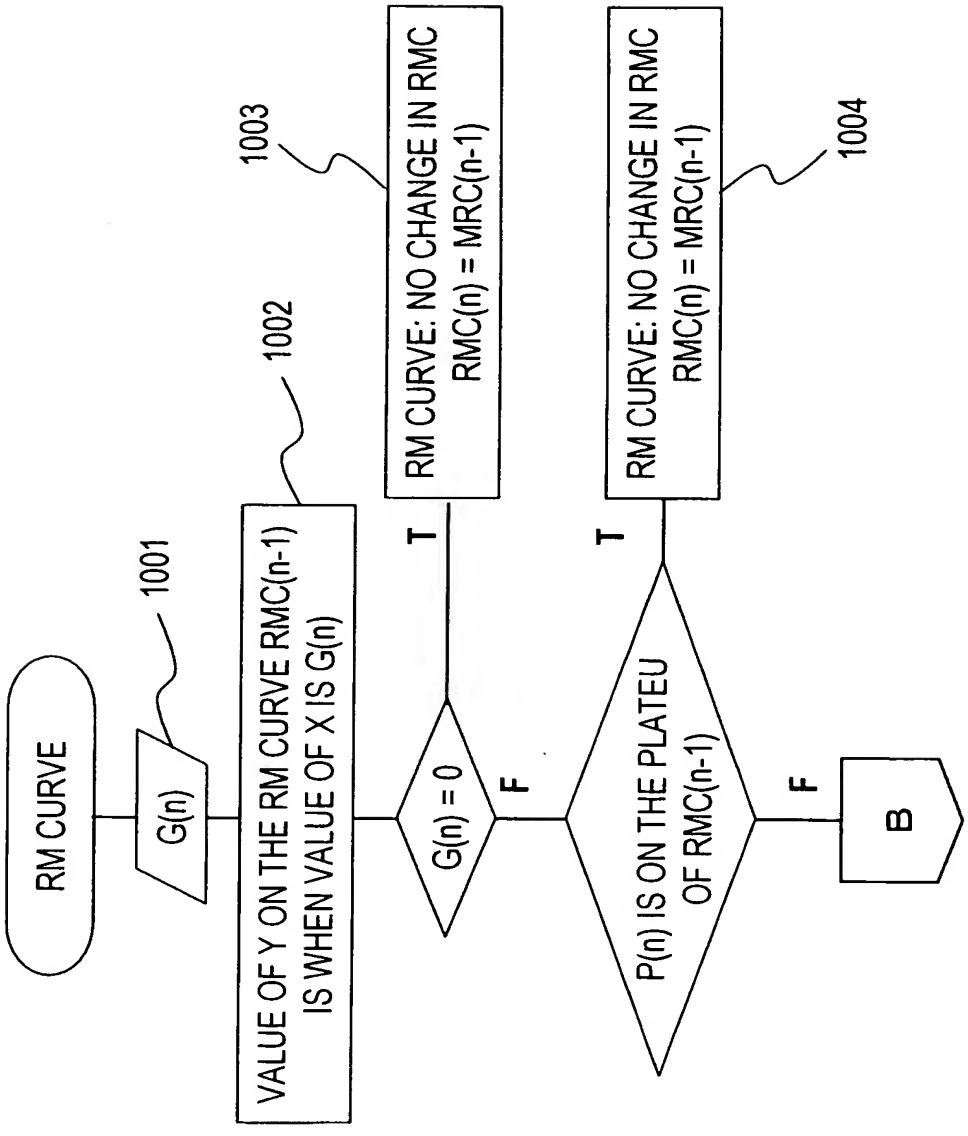

RM CURVE
1001
G(n)
1002
VALUE OF Y ON THE RM CURVE RMC(n-1)
IS WHEN VALUE OF X IS G(n)
G(n) = 0
T
1003
RM CURVE: NO CHANGE IN RMC
RMC(n) = MRC(n-1)
F
P(n) IS ON THE PLATEU
OF RMC(n-1)
T
1004
RM CURVE: NO CHANGE IN RMC
RMC(n) = MRC(n-1)
F
B

FIG. 13

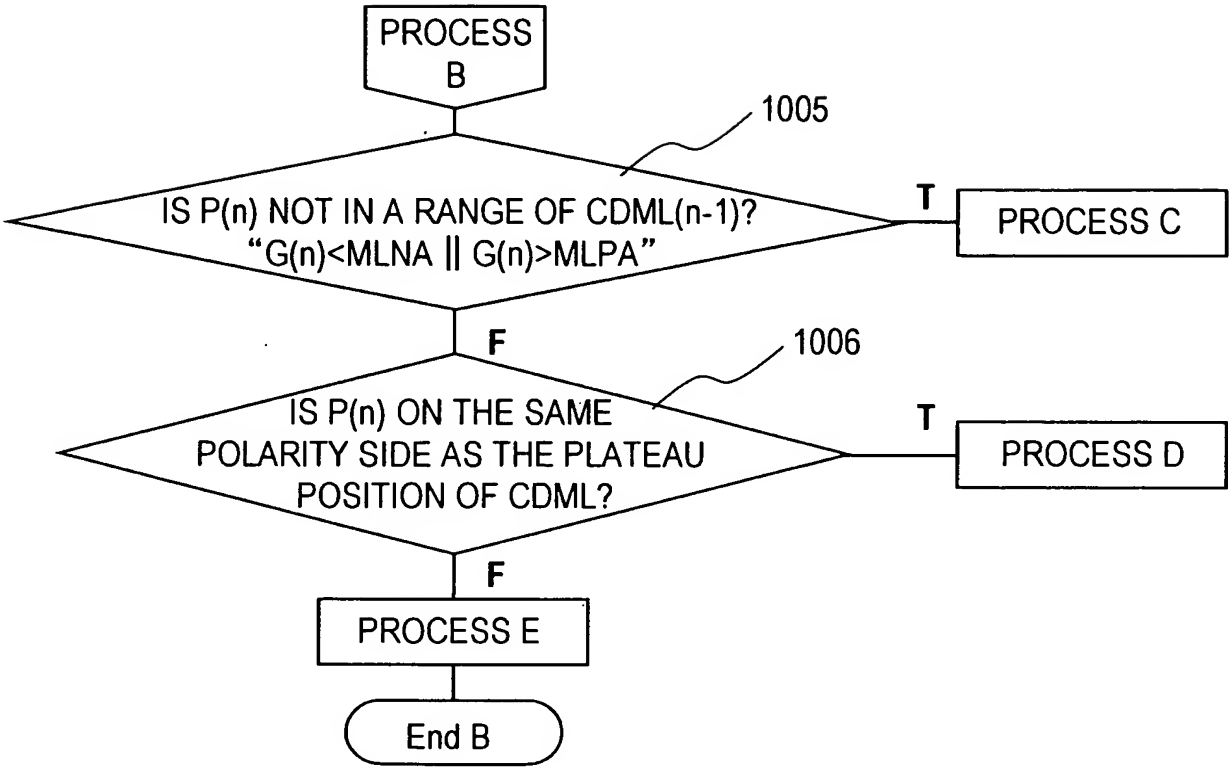

PROCESS B
1005
IS P(n) NOT IN A RANGE OF CDML(n-1)?
"G(n)<MLNA || G(n)>MLPA"
T
PROCESS C
F
1006
IS P(n) ON THE SAME POLARITY SIDE AS THE PLATEAU POSITION OF CDML?
T
PROCESS D
F
PROCESS E
End B

FIG. 14

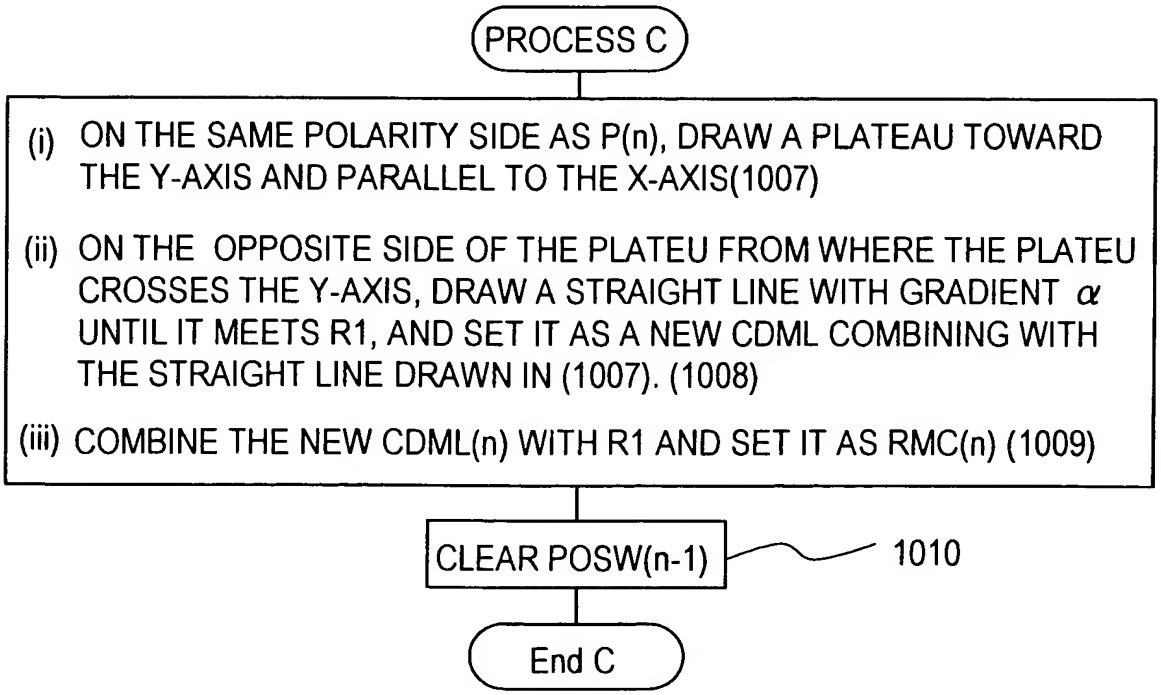

PROCESS C
(i) ON THE SAME POLARITY SIDE AS P(n), DRAW A PLATEAU TOWARD THE Y-AXIS AND PARALLEL TO THE X-AXIS(1007)
(ii) ON THE OPPOSITE SIDE OF THE PLATEU FROM WHERE THE PLATEU CROSSES THE Y-AXIS, DRAW A STRAIGHT LINE WITH GRADIENT α UNTIL IT MEETS R1, AND SET IT AS A NEW CDML COMBINING WITH THE STRAIGHT LINE DRAWN IN (1007). (1008)
(iii) COMBINE THE NEW CDML(n) WITH R1 AND SET IT AS RMC(n) (1009)
CLEAR POSW(n-1)
1010
End C

FIG. 15

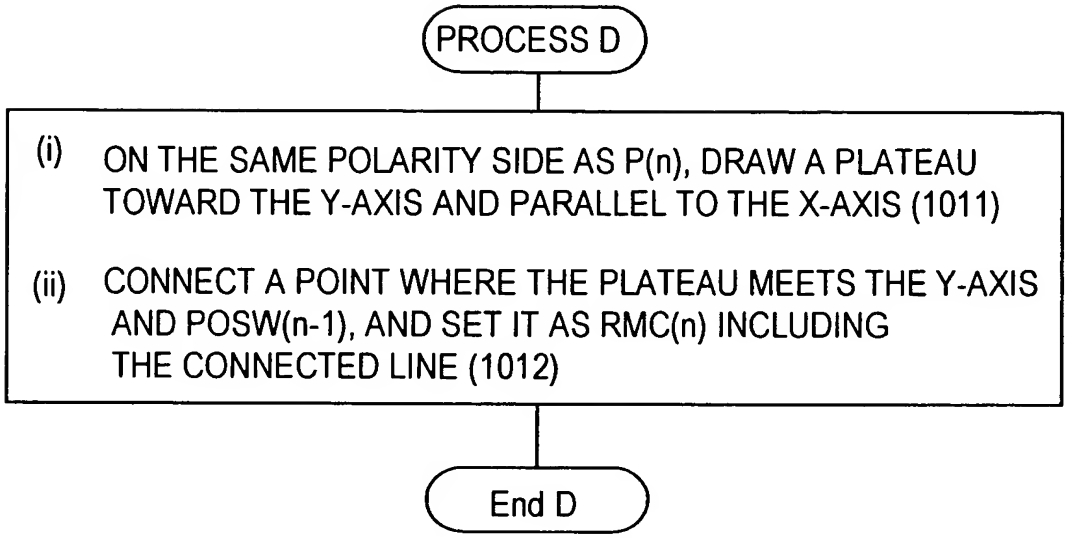

PROCESS D
(i) ON THE SAME POLARITY SIDE AS P(n), DRAW A PLATEAU TOWARD THE Y-AXIS AND PARALLEL TO THE X-AXIS (1011)
(ii) CONNECT A POINT WHERE THE PLATEAU MEETS THE Y-AXIS AND POSW(n-1), AND SET IT AS RMC(n) INCLUDING THE CONNECTED LINE (1012)
End D

FIG. 16

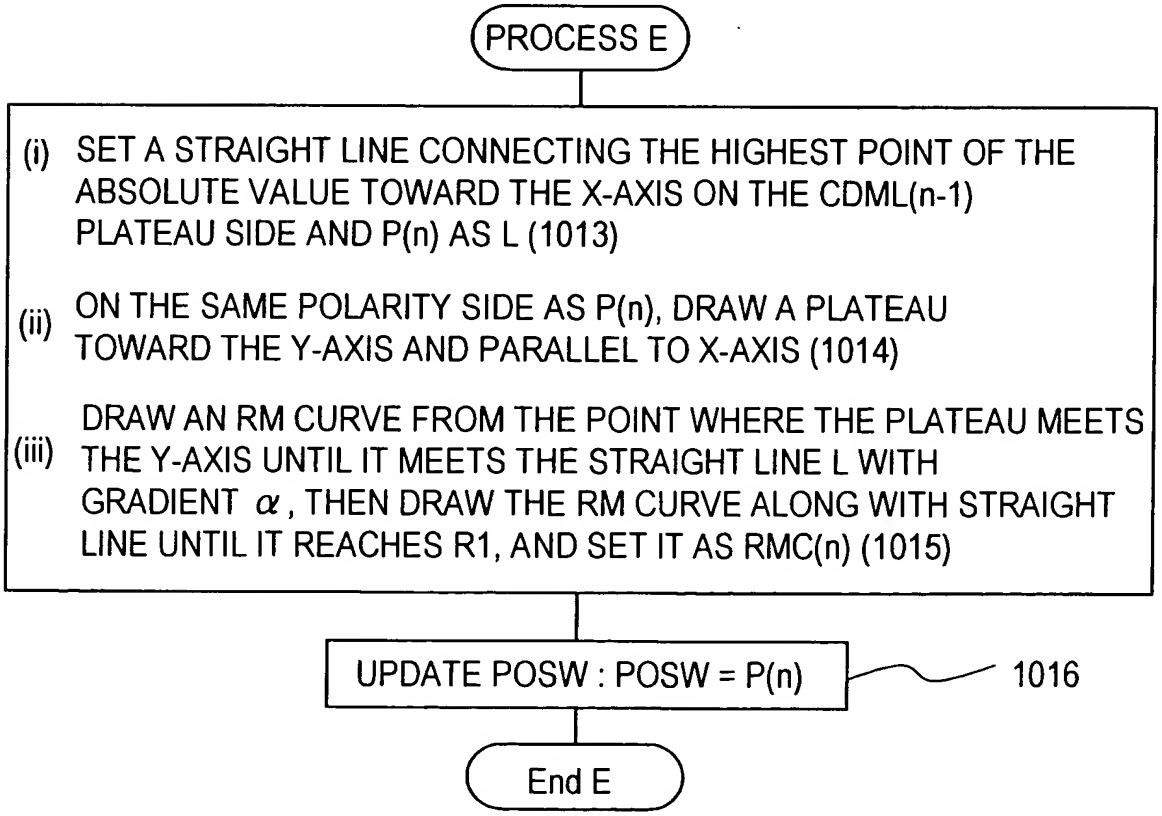

PROCESS E
(i) SET A STRAIGHT LINE CONNECTING THE HIGHEST POINT OF THE ABSOLUTE VALUE TOWARD THE X-AXIS ON THE CDML(n-1) PLATEAU SIDE AND P(n) AS L (1013)
(ii) ON THE SAME POLARITY SIDE AS P(n), DRAW A PLATEAU TOWARD THE Y-AXIS AND PARALLEL TO X-AXIS (1014)
(iii) DRAW AN RM CURVE FROM THE POINT WHERE THE PLATEAU MEETS THE Y-AXIS UNTIL IT MEETS THE STRAIGHT LINE L WITH GRADIENT α, THEN DRAW THE RM CURVE ALONG WITH STRAIGHT LINE UNTIL IT REACHES R1, AND SET IT AS RMC(n) (1015)
UPDATE POSW : POSW = P(n)
1016
End E

FIG. 17

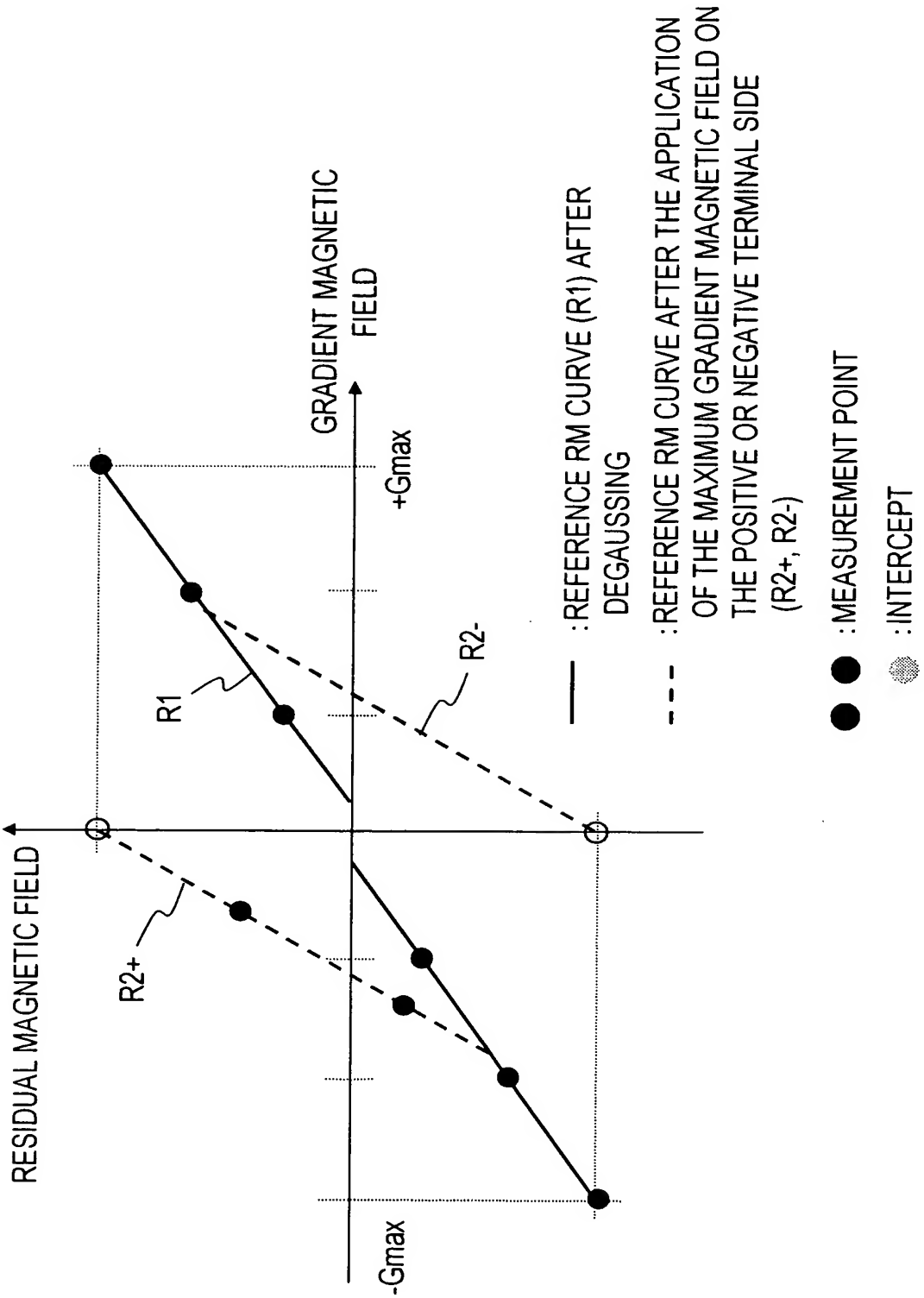

RESIDUAL MAGNETIC FIELD
GRADIENT MAGNETIC FIELD
+Gmax
-Gmax
R1
R2+
R2-
:REFERENCE RM CURVE (R1) AFTER DEGAUSSING
:REFERENCE RM CURVE AFTER THE APPLICATION OF THE MAXIMUM GRADIENT MAGNETIC FIELD ON THE POSITIVE OR NEGATIVE TERMINAL SIDE (R2+, R2-)
:MEASUREMENT POINT
:INTERCEPT

FIG. 18

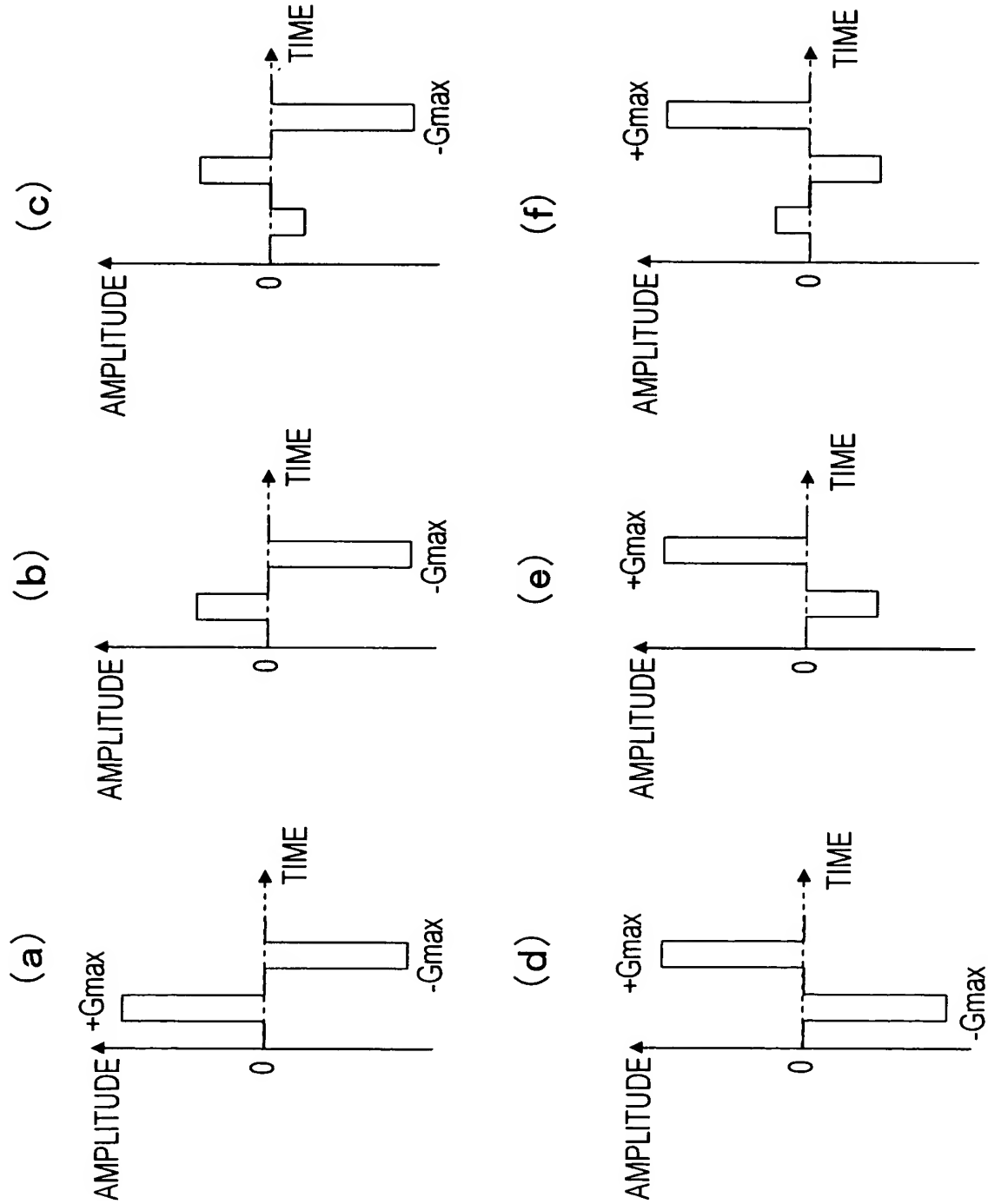


FIG. 19

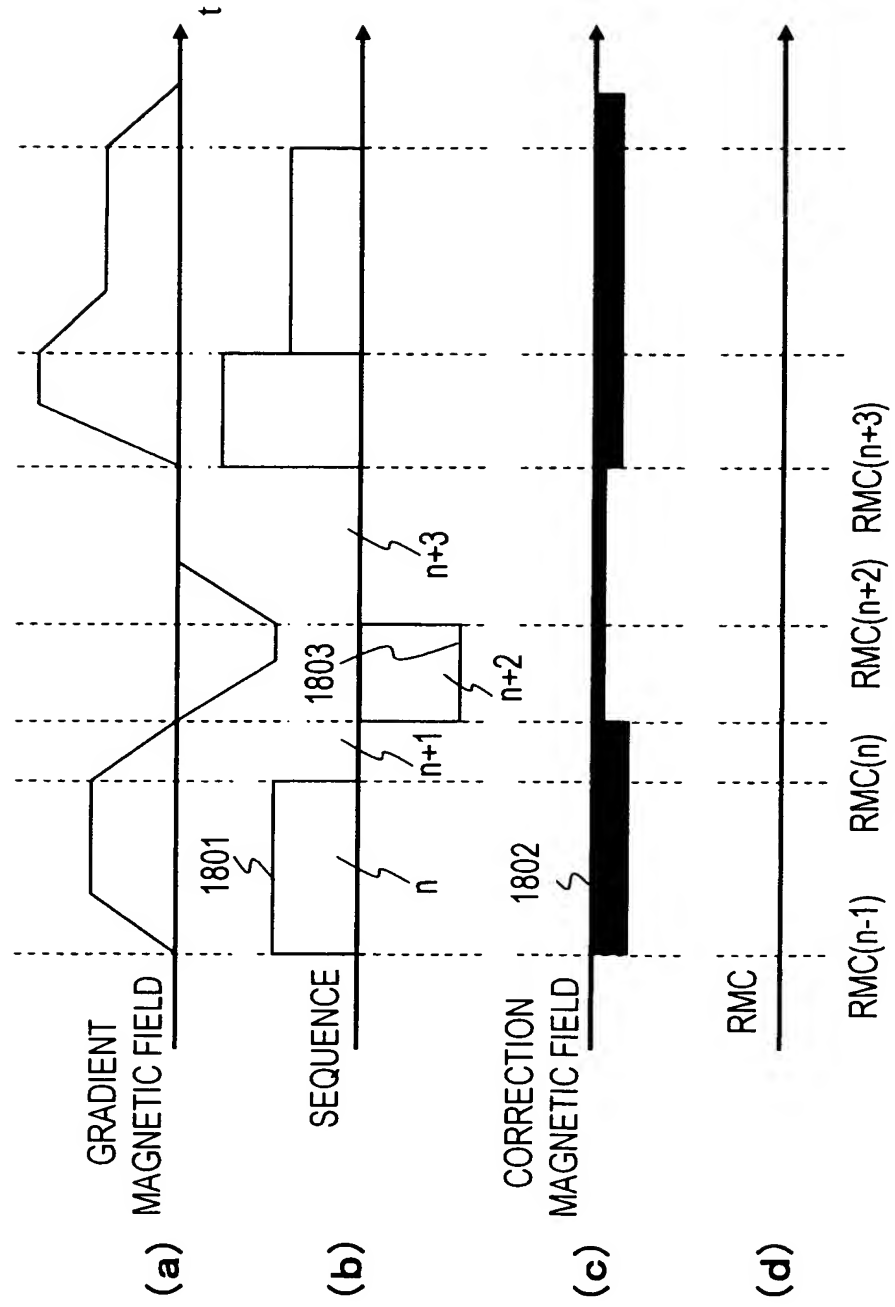
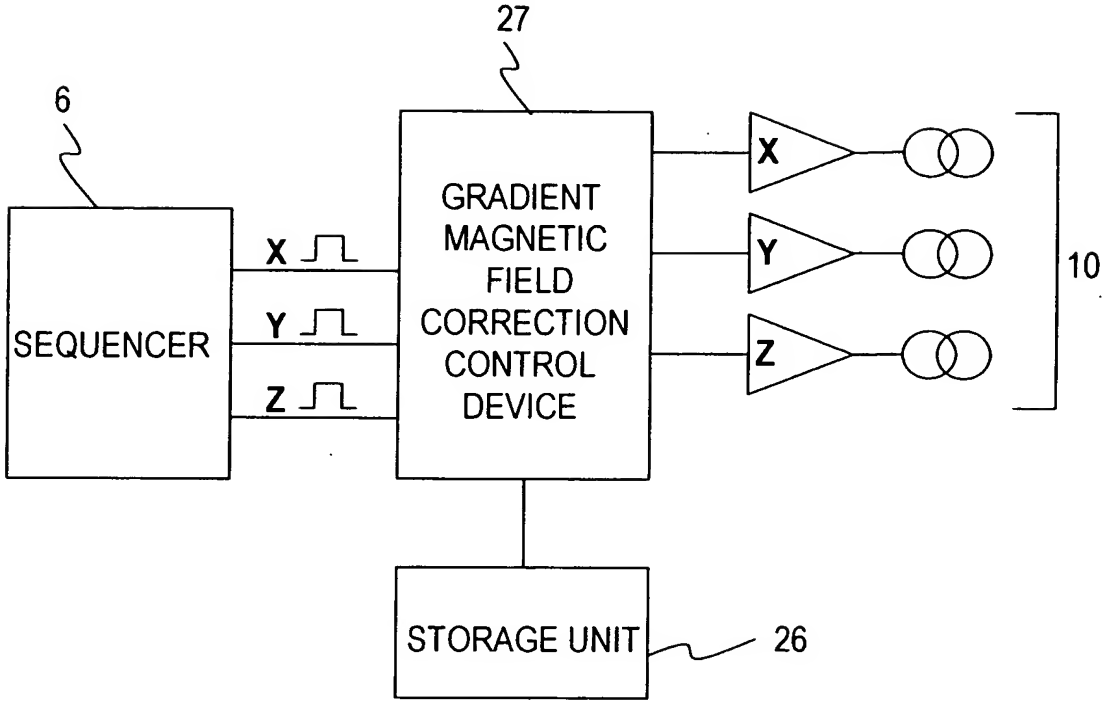

(a)
GRADIENT MAGNETIC FIELD
t
1801
(b)
SEQUENCE
n
n+1
1803
n+2
n+3
(c)
CORRECTION MAGNETIC FIELD
1802
(d)
RMC
RMC(n-1)
RMC(n)
RMC(n+1)
RMC(n+2)
RMC(n+3)

FIG. 20


27
6
GRADIENT MAGNETIC FIELD CORRECTION CONTROL DEVICE
SEQUENCER
X
Y
Z
X
Y
Z
10
STORAGE UNIT
26